Frantisek Masek

Current version of CV (the file below valid for June 2022)

PERSONAL DATA

Address	Via del Castro Laurenziano 9, 00161, Rome, Italy
Telephone	(+39) 3274129141 / (+420) 777742010
E-mail	frantisek.masek@uniroma1.it/frantisekmasek93@gmail.com

EDUCATION

Ph.D. Candidate in Economics 2020-continuing
Sapienza University of Rome, Department of Economics and Law
Supervisor: Marco Di Pietro
Research interest: Monetary Policy Rules, Effective/Zero Lower Bound, Heterogeneous Agent New Keynesian Models; Causal Inference in Spatial Econometrics

Research Visiting Stay Fall 2022-Spring 2023
University of Chicago, Center for Spatial Data Science

Master's Degree in Economic Analysis 2017-2019
Prague University of Economics and Business, Faculty of Economics

Bachelor's Degree in Economics and Economic Policy 2013-2017
Prague University of Economics and Business, Faculty of Economics

GRANTS AND FELLOWSHIPS

Fellowship for Foreign Nationals Educated Abroad 2020-2023
Sapienza University of Rome

Research Initiation Projects 2021
Sapienza University of Rome

WORK IN PROGRESS

Average Inflation Targeting Through the Lens of a Behavioral Heterogeneous Agent New Keynesian Model

I study an average inflation targeting regime in a model that contains behavioral and heterogeneous features to substantially weaken the forward looking structure of the model. I use a sort of three equation New Keynesian model in discrete time. However, the model contains a tractable heterogeneous agent New Keynesian (HANK) characteristics of Bilbiie (2021) in the household sector. Moreover, both private sector sides embed myopic attributes given by a cognitive discounting of Gabaix (2020). These features should attenuate the forward looking aspects of the model and handle the forward guidance puzzle yet at the same time deliver the monetary policy amplification through indirect general equilibrium effect. Hence, the model is suitable for the investigation of makeup monetary policy rules in an effective lower bound (ELB) situation. Particularly, I compute an optimal averaging period in the case of the average inflation targeting rule based on a welfare analysis. Moreover, I explore the differences based on a numerical solution to catch possible precautionary behaviour. Therefore, the model is solved twice. Firstly using a local approximation in a piecewise linear way. Secondly non-linearly by applying global techniques. Specifically, I deploy a finite elements approach using the collocation method and linear splines as the basis functions.

Measurement of the Economics Knowledge of the Czech High School Students
with Pavel Potuzák and Renan Serenini

The article investigates the economic knowledge of Czech high school students using a database of 18,589 participants from the 2019-2020 Czech Economics Olympiad. Czech high school students show solid comprehension of basic economics concepts, and principles of international economics, but understand substantially less about microeconomic and macroeconomic theory. We demonstrate that some prevalent features of the economic knowledge of students found in other countries are also present in the Czech Republic, including a gender gap. Our analysis confirms problematic aspects of the Czech education system which have been identified in prior studies, including large differences in education quality across types of schools and regions. This study can serve as a basis for ongoing experiments based on data from the Economics Olympiad.

Regional spillover effects of Russian invasion of Ukraine in 2014
with Renan Serenini

We estimate the causal effect of Russian invasion of Ukrainian regions Donetsk and Luhansk in 2014 on gross regional product and unemployment rate. We are particularly interested in estimating both direct and indirect treatment effects. Hence, besides estimating economic consequences on the two regions, we also investigate the effects on neighboring regions. Based on possible violation of SUTVA assumption when applying traditional quasi-experimental methods and including different Ukrainian regions amongst control units, we deploy tools that handle potential spillover effects of the treatment. Specifically, we use spatial extension of difference-in-differences from Delgado and Florax (2015). On top of that, we also apply adjusted version of the synthetic control method (SCM) - the inclusive SCM - from Stefano and Mellace (2020).

TEACHING

Computational Methods in Macroeconomics (Ph.D.) expected 2022
Setting up and teaching the whole course, Sapienza University of Rome

- Perturbation techniques and dealing with occasionally binding constraints in a local approximation.
- Intro to projection methods - spectral methods (Chebyshev polynomials) and finite element approach.
- Intro to reinforcement learning and dynamic programming - value function iteration, improvements, and policy function iteration.
- Incomplete markets models - Bewley-Hugget-Aiyagari and Krusell-Smith models.

Macroeconomics (Ph.D.) 2022
Teaching assistantship for Marco Di Pietro, Sapienza University of Rome

- New Keynesian models.
- Perturbation methods.

Monetary Macroanalysis (Graduate) 2021
Teaching assistantship for Van Quang Tran, Prague University of Economics and Business

- Perturbation methods.

Applied Macroeconomics and Policy (Graduate) 2021
Teaching assistantship for Massimiliano Tancioni, Sapienza University of Rome

- Estimation methods for DSGE models.

Monetary Economics (Graduate) 2021
Teaching assistantship for Marco Di Pietro, Sapienza University of Rome

- New Keynesian models.

Principles of economics 2016-2017
Private high school START

WORKSHOPS AND CONFERENCES

Tools for Macroeconomists, University of Oxford 2021
Tutors: Wouter den Haan, Petr Sedlacek, and Pontus Rendahl
Two Courses: The Essentials and Advanced Tools

The Macroeconomics of Inequality, University of Bonn 2021
Tutor: Florin Bilbiie
Short Course: Tractable HANK Models

Sailing the Macro Workshop, Sapienza University 2021

NON-ACADEMIC EXPERIENCE

Junior Economist in Dealing Department 2020
FIO Bank

Other activities
Publishing articles on topics of economics in Ekontech magazine. External cooperation in the project of the Institute of Economics Education (INEV) in terms of test grading of the Economics Olympiad, writing analyzes of the results, organizing and presenting lectures at high schools.

AWARDS

Award from the Examination Board for an excellent diploma thesis and second place in the Dean's Award for the best master's thesis

- **Name of the master's thesis:** Monetary Policy Regimes: A DSGE Model Approach

Second place in the Dean's Award for the best undergraduate thesis

- **Name of the bachelor's thesis:** The Fed's Monetary Policy During the Time of Alan Greenspan as Chair of the Board of Governors

SKILLS AND ADDITIONAL INFORMATION

Languages: Czech-native proficieny, English-full professional proficiency, Italian-beginner
Software: Matlab, R, Stata, Eviews, and basics of Python; software platform Dynare embedded in Matlab; LaTex; terminals Bloomberg or Thomson Reuters Eikon
Traits: diligence, endurance, ability to work quickly with incoming information and learn new things
Hobbies: reading, travelling, football (in youth ages active player in FC Viktoria Pilsen)

REFERENCES

Marco Di Pietro, Ph.D. marco.dipietro@uniroma1.it
Sapienza University of Rome

Pavel Potužák, Ph.D. pavel.potuzak@vse.cz
Prague University of Economics and Business

Van Quang Tran, Ph.D. et Ph.D. tran@vse.cz
Prague University of Economics and Business